

Claims

1. Robot with at least one conductor guiding apparatus (1) running at least partially on the outside, in which 5 guiding apparatus conductors (3), hoses or similar are guided, characterised in that the conductor guiding apparatus (1) has at least one spatially deflectable section comprising members (4) each of which has a central body (5) through which a flexible linking element (6) 10 extends, whereby the members (4) form a channel (9) for accommodating conductors, hoses or similar.

2. Robot according to Claim 1, characterised in that adjacent members (4) are linked in form-fitting manner to each other.

15 3. Robot according to Claim 1 or 2, characterised in that at least two adjacent members (4) are linked to each other by a ball joint.

20 4. Robot according to Claim 1, 2 or 3, characterised in that means are provided through which the spatial deflection is limited.

5. Robot according to Claim 4, characterised in that the means comprise at least one stop and at least one counterstop.

25 6. Robot according to Claim 5, characterised in that the at least one stop is formed by a projection (14) directed radially outwards, said projection engaging in a recess (15).

30 7. Robot according to Claim 6, characterised in that the at least one projection (14) is formed on the joint body (12) and the recess (15) is formed in the joint socket (13).

8. Robot according to Claim 6 or 7, characterised in that at least two projections (14) are provided, arranged equidistant from each other.

9. Robot according to one of the claims 1 to 8, characterised in that the central body (5) is provided with at least one web (8) linked to a wall (7), whereby the wall (7) and the central body (5) delimit a channel (9).

5 10. Robot according to Claim 9, characterised in that the wall (7) has at least one gap (10) extending in the longitudinal direction of the central body (5).

11. Robot according to Claim 9 or 10, characterised in that the wall (7) is so designed that sections (17, 20) of  
10 the walls (7) of two adjacent members (4) overlap each other.

12. Robot according to one of the claims 1 to 11, characterised in that holders (2) are provided by means of which the conductor guiding apparatus (1) is attached to  
15 said robot.

13. Robot according to Claim 12, characterised in that the holders (2) are designed clamp-shaped, whereby said holder interacts with the wall (7) of a member (4).

14. Robot according to Claim 12 or 13, characterised  
20 in that the holder (2) is linked to a member in form-fitting or force-fitting manner.

15. Robot with at least one conductor guiding apparatus (1) running at least partially on the outside, in which guiding apparatus conductors (3), hoses or similar  
25 are guided, in particular according to one of the claims 1 to 14, having an apparatus (30) for guiding and storage of the<sup>iv</sup> conductor guiding apparatus in the base (29) of the robot, characterised in that the apparatus (30) has a guiding region (31) formed in a first plane and a storage region (32) formed in a second plane formed separately from the first plane.

16. Robot according to Claim 15, characterised in that the guiding region (31) lies in a substantially horizontal plane.

17. Robot according to Claim 15 or 16, characterised in that the planes lie at an angle of up to 90° to each other.

18. Robot according to Claim 15, 16 or 17,  
5 characterised in that the storage region (32) lies in a substantially vertical plane.

19. Robot according to one of the claims 15 to 18, characterised in that the guiding region (31) is designed in the form of a channel.

10 20. Robot according to one of the claims 15 to 19, characterised in that the guiding region (31) is designed arc-shaped and, in particular, in the form of a partial circle, preferably annular.

15 21. Robot according to one of the claims 15 to 20, characterised in that the storage region (32) is so designed that the conductor guiding apparatus (1) forms an upper strand and a lower strand in the storage region (32).

20 22. Robot according to one of the claims 15 to 21, characterised in that the guiding region (31) and the storage region (32) are detachably linked to each other.

23. Robot according to one of the claims 15 to 22, characterised in that between the guiding region (31) and the storage region (32), a transition region (33) is provided.

25 24. Robot according to one of the claims 15 to 23, characterised in that the guiding region (31), the storage region (32) and/or the transition region (33) are designed at least partially as formed parts and, in particular, as sheet metal formed parts.